ET NO.: ISIS-1158

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE patent application of:

Nielsen, et al.

Serial No.: 08/319,411

Group No.: Not yet assigned.

Filed: October 6, 1994

Examiner: Not yet assigned.

For: Peptide Nucleic Acid Conjugates

Commissioner of Patents & Trademarks Washington, DC 20231

Sir:

#### ASSOCIATE POWER OF ATTORNEY

The undersigned, John W. Caldwell, Registration No. 28,937, of the firm WOODCOCK WASHBURN KURTZ MACKIEWICZ & NORRIS, One Liberty Place - 46th Floor, Philadelphia, Pennsylvania 19103, Attorney and/or Agent for Applicant(s), hereby appoints the following:

Robert B. Washburn Richard E. Kurtz John J. Mackiewicz Norman L. Norris Albert W. Preston, Jr. Dale M. Heist Philip S. Johnson Gary H. Levin Steven J. Rocci Dianne B. Elderkin Francis A. Paintin John P. Donohue, Jr. Henrik D. Parker	Registration No. 16,574 Registration No. 19,263 Registration No. 19,709 Registration No. 24,196 Registration No. 25,366 Registration No. 27,200 Registration No. 28,734 Registration No. 30,489 Registration No. 28,598 Registration No. 19,386 Registration No. 29,916 Registration No. 29,916 Registration No. 31,863
	1091001 ACT NO. 31,863

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Suzanne E. Miller Registration No. 32,279 Lynn B. Morreale Registration No. 32,842 Albert T. Keyack Registration No. 32,906 Joseph Lucci Registration No. 33,307 Michael P. Dunnam Registration No. 32,611 Michael D. Stein Registration No. 34,734 Albert J. Marcellino Registration No. 34,664 David R. Bailey Registration No. 35,057 Rebecca L. Ralph Registration No. 35,152 John L. Knoble Registration No. 32,387 Michele K. Herman Registration No. 35,893 Barbara L. Mullin Registration No. 38,250 Ken I. Yoshida Registration No. 37,009 Mark DeLuca Registration No. 33,229 Steven B. Samuels Registration No. 37,711 Lynn A. Malinoski Registration No. P38,788 Lori Y. Beardell Registration No. 34,293 Frederick A. Tecce Registration No. 32,065 Raymond M. Speer Registration No. 26,810 Doreen Yatko Trujillo Registration No. 35,719 Registration No. 36,317 Michael P. Straher Registration No. 38,325 Merle W. Richman, III Registration No. 38,282 Registration No. 38,534 Kevin M. Flannery Registration No. 35,871 David A. Cherry Registration No. 35,099 Anthony J. Rossi Registration No. 24,053 D. Jennings Meincke Registration No. 36,606

and

Herb Boswell Registration No. 27,311 Registration No. 37,280

of ISIS PHARMACEUTICALS, 2280 Faraday Avenue, Carlsbad,
California 92008; his associates, with full power to prosecute
the above-identified application and to transact all business in
the Patent Office connected therewith and requests that



correspondence continue to be directed to the firm of  $\ensuremath{\mathsf{WOODCOCK}}$ WASHBURN KURTZ MACKIEWICZ & NORRIS at the above address.

Date: April 10, 1995

John W. Caldwell

Attorney and/or Agent of Record Registration No. 28,937

WOODCOCK WASHBURN KURTZ MACKIEWICZ & NORRIS One Liberty Place - 46th Floor Philadelphia, PA 19103 (215) 568-3100

#### DOCKET NO .: ISIS-1158

3.

# COMBINED DECLARATION AND POWER OF ATTORNEY

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name; and

I verily believe that I am the original, first and sole inventor (if only one name is listed below) or an original, first and sole and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled: Peptide Nucleic Acid Conjugates, the

) is attached hereto.

(XX) was filed on October 6, 1994, as Application Serial

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PCT	EP/01219		Date Filed	Priority Claimed
Denmark	986/91		May 22, 1992	Yes.
Denmark	987/91		May 24, 1991	Yes.
Denmark	510/92		May 24, 1991 April 15, 1992	Yes.
			<u></u>	Yes.

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08/108,591	August 27	pending)
08/088,658	August 27, 1993	pending
08/088,661	July 2, 1993	pending
08/275,951	July 2, 1993	pending
007275,951	July 15, 1994	pending
I hereby appo	sime	

agent(s) to prosecute this application and to transact all business in the Patent and Trademerk Office connected therewith: John W. Caldwell, Registration No. 28,937, of the firm of WOODCOCK WASHBURN KURTZ MACKIEWICZ & NORRIS, One Liberty Place - 46th Floor, Philadelphia, Pennsylvania 19103, and Herb Boswell and Laurel Benstein, Registration Nos. 27,311 and 37,280, of ISIS Pharmaceuticals, 2280 Faraday Avenue, Carlsbad, California 22008.

Address all telephone calls and correspondence to:

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1	Full Name Peter Nielsen	Inventor Signature	Date
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	Full Name Ole Buchardt	Inventor's Signature	Date
2 DK 3500 Vaerlose, Denm Post Office Address	January Vaerlose, Denmark	Citizenship Citizen of Den	mark
F	Sondergardsvej 73	(0 2.0-	- 1000 (20)
1	Full Name Soren Holst Sonnechsen	Inventor's Signature	Date
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	Full Name Jesper Lohse	Inventor's Signature	Date
4	Residence DK 2400 Copenhagen N Denmar		G/I 1995
1	Post Office Address Staerevej 52, 2.tv,		
-	Full Name Michael Egholm	Inventor's Signature	Date
L	Residence Lexington, MA 02173	Citizenship Citizen of Denmar	-b
	Post Office Address 1231 Lexington Ridge Drive	July 20 Mila	



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000	Full Name Muthiah Manoharan Residence	Inventor's Signature	Date
6	Carlsbad, CA 92009 CA	Citizenship U.S.A.	_   1/20 9
	Post Office Address 7634 Reposado Drive		
0	Full Name John Kiely	Inventor's Signature	Date
7	Residence CA San Diego, CA -92130	Citizenship U.S.A.	1/16/95
$\parallel$	Post Office Address 4230 Corte Facil	0.S.A.	
٠     إ	Full Name Michael Griffith	ONY PROT of signatured	Date,
8	Residence A San Diego, CA 92130	Citizenship U.S.A.	1/20/95
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9	Post Office Address 220 Sycamore Avenue, Apt. 61	U.S.A.	
F	ull Name	Inventor's Signature	
10 R	esidence	Citizenship	Date
	ost Office Address		

#### DOCKET NO.: ISIS-1158

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- ( ) is attached hereto.
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Denmark	510/92	April 15, 1992	<u>Yes.</u>
		37 1332	<u>Yes.</u>

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08/088,661		pending
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I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith: John W. Caldwell, Esquire and Michael P. Straher, Esquire Registration Nos. 28,937 and 38,325 of the firm of WOODCOCK WASHBURN KURTZ MACKIEWICZ MORRIS, One Liberty Place - 46th Floor, Philadelphia, Registration Nos. 27,311 and 37,280, of ISIS Pharmaceuticals, 2280 Faraday Avenue, Carlsbad, California 92008.

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Michael P. Straher, Esquire WOODCOCK WASHBURN KURTZ MACKIEWICZ & NORRIS One Liberty Place - 46th Floor Philadelphia, PA 19103 Telephone No. 215-568-3100.

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L	Post Office Address Hjortevanget 509		
	Full Name Ole Buchardt	Inventor's Signature	Date
2	DA 3500 Vaerlose, Denmark	Citizenship Citizen of Denm	ark
L	Post Office Address Sondergardsvej 73		
	Full Name Soren Holst Sonnichsen	Inventor's Signature	Date
3	Residence DK 2630 Tastrup, Denmark	Citizenship Citizen of Denma	
	Post Office Address Gronhojgardsvej 13	02 Delinie	
	Full Name Jesper Lohse	Inventor's Signature	Date
1	Residence DK 2400 Copenhagen N Denmark,	Citizenship Citizen of Denma:	
	Post Office Address Staerevej 52, 2.tv,	or beima	
	Full Name Michael Egholm 5	Inventor a dignature	Date
	Michael Egholm 500 Residence Lexington, MA 02173	Citizenship	11095
1	Post Office Address 1231 Lexington Ridge Driv	Citizen of Denmar	k

	Full Name Muthiah Manoharan	Inventor's Signature	Date
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	Post Office Address 7634 Reposado Drive		
	Full Name John Kiely	Inventor's Signature	Date
7	Residence San Diego, CA 92130	Citizenship U.S.A.	
	Post Office Address 4230 Corte Facil		-01
	Full Name Michael Griffith	Inventor's Signature	Date
8	Diego, CA 92130	Citizenship U.S.A.	
	Post Office Address 3686 Carmel Landing		
	Full Name Kelly Sprankle	Inventor's Signature	Date
,	Residence Vista, CA 92083	Citizenship U.S.A.	
	Post Office Address 920 Sycamore Avenue, Apt. 61		
	Full Name	Inventor's Signature	Date
è	Residence	Citizenship	
	Post Office Address		

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M	Full Name fichael Egholm	Inventor's Signature	Date
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P:	ost Office Address 231 Lexington Ridge Drive	1 Denma	ırk

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	Full Name Michael Griffith	Inventor's Signature	Date
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	Post Office Address 3686 Carmel Landing	-	
	Full Name Kelly Sprankle	Inventor's Signature	Date
	Residence Vista, CA 92083	Citizenship U.S.A.	
	Post Office Address 920 Sycamore Avenue, Apt. 61		
	Full Name	Inventor's Signature	Date
	Residence	Citizenship	
	Post Office Address		



LO4 USIQ PATENT

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		April 15, 1992	Yes.

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1	Residence DK 2980 Kokkedal, Denmark	Citizenship	
L	Post Office Address Hjortevanget 509	Citizen of Der	umark
	Full Name Ole Buchardt	Inventor's Signature	Date
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	Post Office Address Sondergardsvej 73	Citizen of Denr	nark
	Full Name Soren Holst Sonnichsen	Inventor's Signature	Date
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13	Full Name Jesper Lohse	Inventor's Signature	Date
	Residence OK 2400 Copenhagen N Denmark,	Citizenship	
Post Office Address Staerevej 52, 2.tv,		rk	
F	ull Name ichael Egholm	Inventorfu dignafure	Date
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		Full Name Muthiah Manoharan	Inventor's Signature	T
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10	,	Full Name	Inventor's Signature	Date
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PATENT

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